

Week 32

03 - 09 August 2008

Points of Interest**Influenza Threat Level:**• **WHO Phase 3**

Ensure rapid characterization of the new virus subtype, & early detection, notification & response to additional cases.

WHO Pandemic Phase**Laboratory Surveillance****Total Specimens Collected**Week 32: **39**07-08 Seasonal Year: **6,621**% Complete: **97.4%****Influenza Surveillance**

30.4% (1,963/6,451) positive for influenza.

- Flu A - 74.3% (n=1,455)
- Flu B - 25.3% (n=508)
- Flu A/B co-infection - 0.4% (n=6)
(of the 6, 4 were A/H3 & 2 were A/H1)

See Graphs 1-2 for isolates by week

Influenza A

- A (H1): 492
- A (H3): 863
- A/not subtyped: 99

Influenza B

- B (Malaysia): 79
- B (Shanghai): 46
- B (HongKong): 3
- B/not subtyped: 380

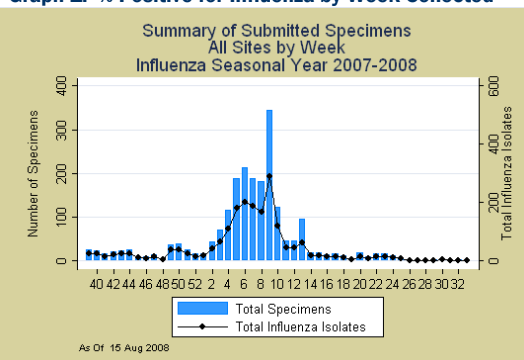
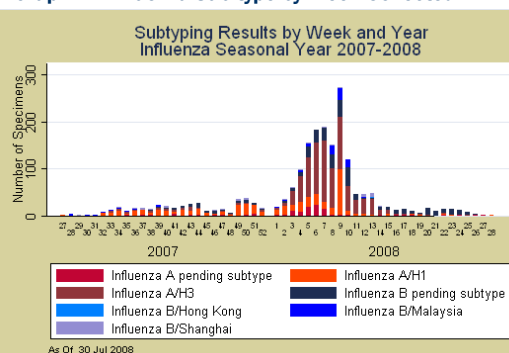
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DoD Global, Lab-Based Influenza Surveillance Program

Respiratory Highlights

- USAFSAM staff presented posters and presentations at this year's Annual Force Health Protection Conference during the week of 11-15 August 2008.

Influenza Overview**Graph 1. % Positive for Influenza by Week Collected****Graph 2. Influenza Sub-type by Week Collected****Highly Pathogenic Human H5N1** as of 19 June 2008, WHO (cited 15 Aug 08)

CY 2008: 34 cases (76.5% case fatality rate) confirmed in Bangladesh, China, Egypt, Indonesia, and Vietnam

CY 2003 to Present: 385 cases (63.1% fatality rate) confirmed in Azerbaijan, Bangladesh, Cambodia, China, Djibouti, Egypt, Indonesia, Iraq, Lao, Myanmar, Nigeria, Pakistan, Thailand, Turkey, and Vietnam

Click on the following links for updates regarding human Highly Pathogenic Human H5N1.

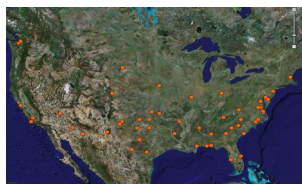
- [World Health Organization \(WHO\)](#)
- [Centers for Disease Control and Prevention \(CDC\)](#)
- [Global Emerging Infections System \(GEIS\)](#)

Avian Influenza H5N1 (non-Human) Updates:

- [WHO Avian Influenza Useful Links](#)
- [Armed Forces Medical Intelligence Center](#)



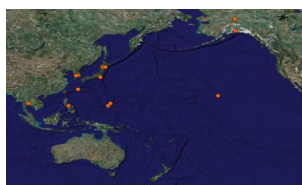
U.S. AIR FORCE



North America



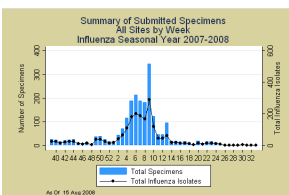
Middle East and S. Asia



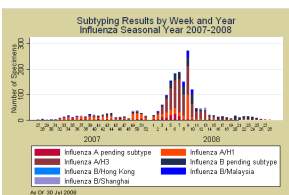
Pacific



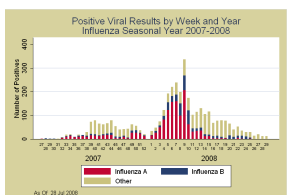
Central America



Graph 1. % Influenza Positive



Graph 2. Influenza Sub-type



Graph 3. Positive Viral Results

Laboratory-Confirmed Respiratory Surveillance

Week 32 Overview: Six sites submitted a total of 39 specimens collected from 03-09 August. Thus far, a total of 48 specimens have been collected and received in August. See Table 1 for a review of specimens collected thus far in August 2008.

Table 1. Month of August Overview: Results of specimens "collected" in August.

Location	Identified Result				Total
	Rhinovirus	Adenovirus	isolated	Pending	
Andersen AFB, Guam				1	1
Keesler AFB, MS				1	1
Lackland AFB, TX	15	4	10	6	35
NH Beaufort, SC	1	1	6	1	9
Sheppard AFB, TX			1		1
Travis AFB, CA			1		1
Total	16	5	18	9	48

Season Overview: Since 30 September 2007, 6,621 specimens were collected from 83 locations. The positive results are displayed in Graphs 1-3 by week collected and overall in Table 2.

*Specimens positive for Adenovirus are then tested by the Adenovirus Type-14 PCR. See "Adenovirus Overview" for more detailed information by site.

Table 2. Season Overview: Results of specimens.

Influenza*	No.	%	Adenovirus*	No.	%
Influenza A	1,455	22.6%	Adenovirus	1,442	22.4%
Influenza A - pending subtype	99	1.5%	Adenovirus Type 14	1,273	19.7%
Influenza A/pending subtype & no co-infection	98	1.5%	Adeno Type-14 & no co-infection	1,239	19.2%
Influenza A/pending subtype & Influenza B	1	0.0%	Adeno Type-14 & Influenza A	6	0.1%
Influenza A/pending subtype & Adeno Type-14	2	0.0%	Adeno Type-14 & Influenza B	2	0.0%
Influenza A/H3	863	13.4%	Adeno Type-14 & Parainfluenza	6	0.1%
Influenza A/H3 & no co-infection	854	13.2%	Adeno Type-14 & Metapneumovirus	1	0.0%
Influenza A/H3 & Influenza B	4	0.1%	Adeno Type-14 & Rhinovirus	18	0.3%
Influenza A/H3 & Adeno Type-14	4	0.1%	Adeno Type-14 & Enterovirus	1	0.0%
Influenza A/H3 & Rhinovirus	1	0.0%	Adenovirus - Not Otherwise Specified	169	2.6%
Influenza A/H1	492	7.6%	Adenovirus & no co-infection	153	2.4%
Influenza A/H1 & no co-infection	489	7.6%	Adenovirus & Rhinovirus	10	0.2%
Influenza A/H1 & Influenza B	2	0.0%	Adenovirus & Parainfluenza	3	0.0%
Influenza A/H1 & Metapneumovirus	1	0.0%	Adenovirus & RSV	2	0.0%
Influenza B	508	7.9%	Adenovirus & Rhinovirus & Metapneumovirus	1	0.0%
Influenza B/pending subtype	380	0.1			
Influenza B/pending subtype & no co-infection	372	5.8%	Other Respiratory Virus*	No.	%
Influenza B & Parainfluenza	1	0.0%	Rhinovirus	142	2.2%
Influenza B & Adeno Type-14	2	0.0%	Parainfluenza	104	1.6%
Influenza B/Shanghai	46	0.7%	RSV	41	0.6%
Influenza B/Malaysia	79	1.2%	Enterovirus	35	0.5%
Influenza B/Hong Kong	3	0.0%	Metapneumovirus	8	0.1%
			Parainfluenza / Enterovirus	3	0.0%
			Rhinovirus / Metapneumovirus	3	0.0%
			Parainfluenza / RSV	1	0.0%

*Number may be reflected in multiple categories

Note: The % describes the percent of total specimens with results (n=6,451), including those with No Respiratory Virus Isolated.

Influenza-like Illness (ILI) Overview

USAFSAM views ILI activity using a refined set of ILI ICD-9 codes. The codes are reviewed by seasonal year among all outpatient visits according to week and clinic/site/service.

ILI activity among overall DoD MTFs is < 1 standard deviation below the mean (click on Graphs 1-5). Note: in the DoD Overall ILI Activity graph, the Navy, Army, and Coast Guard data are updated to Week 29, whereas Air Force data are updated to Week 30.

ACTIONS: If an increase in ILI is identified (regardless of sentinel or non-sentinel status), USAFSAM will contact the site's public health office for awareness of the increase and requested a sample of specimens.

National & International Influenza Surveillance

Surveillance throughout Europe

USAFSAM sentinel sites throughout Europe submit specimens to Landstuhl Regional Medical Center (see pg 4). Additional military sites throughout Europe are also included in the EUCOM network. Please see [CHPPM-EUR report](#), describing EUCOM surveillance.

Contributions to National and Global Influenza Surveillance

All national data from USAFSAM are incorporated into CDC's weekly surveillance summaries. Additionally, select original samples, isolates and sequence data are sent to CDC for further characterization and/or possible use as a seed virus for the influenza vaccine.

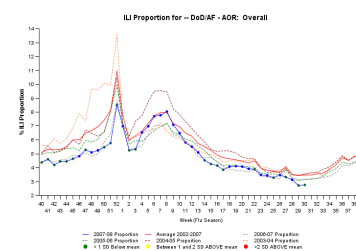
CDC / WHO Influenza Surveillance

(as of May 17, 2008; cited 29 July 2008)

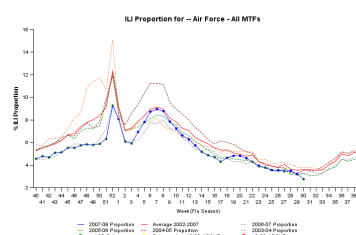
[CDC](#) Please click below to view CDC's report and see CDC map below. During Week 20 (week ending 17 May), **influenza activity continued to decrease in the US** (1.9% of specimens tested positive for influenza). Since the beginning of the season, 17.9% of specimens tested positive for influenza (gathered from CDC's weekly report). See the [CDC report](#) for a complete detail.

WHO data may vary slightly from week to week. Please refer to [WHO's website](#) for detailed information.

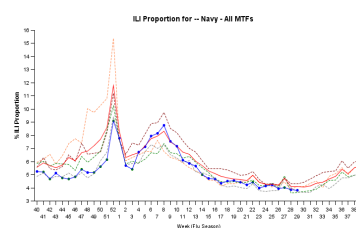
Graph 1. DoD: Overall ILI Activity



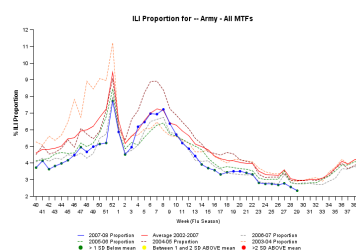
Graph 2. AIR FORCE



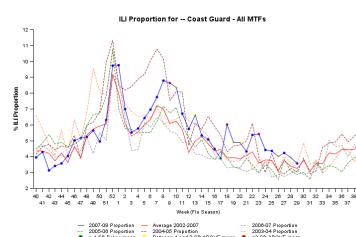
Graph 3. NAVY



Graph 4. ARMY



Graph 5. COAST GUARD



US AIR FORCE SCHOOL OF AEROSPACE MEDICINE

Brooks City-Base, Texas

Public Health Services
210-536-3471; DSN 240-3471

Laboratory Services
210-536-8378; DSN 240-8378

E-mail
influenza@brooks.af.mil



2007-2008 Sentinel Sites

DoD Global Influenza Surveillance Program

<https://gumbo.brooks.af.mil/pestilence/Influenza/>

The DoD-wide program was established by the Global Emerging Infections Surveillance and Response System (GEIS) in 1997. The surveillance network includes the US Air Force School of Aerospace Medicine (sentinel site respiratory surveillance), the Naval Health Research Center (recruit and shipboard respiratory surveillance), the Naval Medical Research Unit [NAMRU-3] in Cairo, Egypt, the Naval Medical Research Unit [NAMRU-2] in Jakarta, Indonesia, the Armed Forces Research Institute of Medical Sciences [AFRIMS] in Bangkok, Thailand, the U.S. Naval Medical Research Center-Detachment [NMRC-D] in Lima, Peru, and the United States Army Medical Research Unit-Kenya [USAMRU-K] located in Nairobi, Kenya.

Sentinel Site Surveillance at the US Air Force School of Aerospace Medicine (USAFSAM) - previously known as AFIOH

In 1976, the US Air Force Medical Service began conducting routine, global, lab-confirmed influenza surveillance. Air Force efforts expanded to DoD-wide in 1997. With the Air Force as the Executive Agent, USAFSAM manages the surveillance program that includes global surveillance among DoD beneficiaries at 71 sentinel sites (including deployed locations) and several non-sentinel sites (see graph to left). Unique sentinel sites include three DoD overseas medical research laboratories (AFRIMS, NMRC-D, USAMRU-K) and the US Army Center for Health Promotion and Preventive Medicine-West (CHPPM-W). These sites collect specimens from local residents in surrounding countries that may not otherwise be covered in existing surveillance efforts.

Starting in the 2006-2007 season, Landstuhl Regional Medical Center (LRMC) will serve EU-COM as an USAFSAM contributing laboratory. The initiative will provide for more timely results and efficient transport of specimens.

This report was prepared on **15 August 2008** by USAFSAM. For an expanded view, visit our website. Also available on the website is a list of previous weekly surveillance reports, program information (including an educational briefing and instruction pamphlets for clinic staff), and an overview of historical data. Please visit the **DoD-GEIS website** for an overview of influenza surveillance at all collaborating DoD-GEIS organizations.

Collaborating Partners

In addition to all participating DoD military sentinel sites, several collaborating partners (described above) may be further understood by reviewing the partner's website. Please click on the respective logo below.



US AIR FORCE SCHOOL OF AEROSPACE MEDICINE

